

CLAIMS

1. An anti-SARS virus monoclonal antibody against nucleoprotein of a corona virus which causes severe acute respiratory syndrome (SARS), or an antigen-binding fragment thereof.

5 2. The anti-SARS virus monoclonal antibody or the antigen-binding fragment thereof according to claim 1, which is a monoclonal antibody.

3. The anti-SARS virus monoclonal antibody or the antigen-binding fragment thereof according to claim 1, which monoclonal antibody is produced by a hybridoma prepared by using as an immunogen the nucleoprotein of said coronavirus, said
10 nucleoprotein being expressed by a vector in which a nucleotide sequence shown in SEQ ID NO:1 is incorporated.

4. The anti-SARS virus monoclonal antibody or the antigen-binding fragment thereof according to claim 3, which monoclonal antibody has binding specificity of the monoclonal antibody produced by hybridoma rSN-18 having an Accession No.
15 FERM BP-10143, hybridoma rSN-122 having an Accession No. FERM BP-10144, hybridoma rSN-150 having an Accession No. FERM BP-10145, hybridoma rSN-21-2 having an Accession No. FERM BP-10146 or hybridoma rSN-29 having an Accession No. FERM BP-10147.

5. The anti-SARS virus monoclonal antibody or the antigen-binding fragment
20 thereof according to claim 1, which monoclonal antibody is produced by a hybridoma prepared by using as an immunogen the amino acid sequence shown in SEQ ID NO:3.

6. A hybridoma producing said monoclonal antibody according to any one of claims 1 to 5, which hybridoma is obtained by fusing an anti-SARS virus monoclonal antibody-producing cell and a tumor cell.

25 7. Hybridoma rSN-18 having an Accession No. FERM BP-10143, hybridoma rSN-122 having an Accession No. FERM BP-10144, hybridoma rSN-150 having an Accession No. FERM BP-10145, hybridoma rSN-21-2 having an Accession No.

FERM BP-10146 or hybridoma rSN-29 having an Accession No. FERM BP-10147, which hybridomas produce said monoclonal antibody or the antigen-binding fragment thereof recited in any one of claims 1 to 5.

8. An reagent for immunoassay of SARS-causing coronavirus, comprising said monoclonal antibody or the antigen-binding fragment thereof according to any one of claims 1 to 5 as at least one of immobilized antibody and labeled antibody.

9. An immunoassay device comprising a detection zone having an anti-SARS virus antibody immobilized on a matrix through which liquid can be transported; and a labeled reagent zone on which a labeled anti-SARS antibody is spotted in such a manner that said labeled anti-SARS antibody is mobile; at least one of said antibody immobilized on said detection zone and said labeled anti-SARS virus antibody being said monoclonal antibody or the antigen-binding fragment thereof according to any one of claims 1 to 5.

10. The immunoassay device according to claim 9, wherein said label is an enzyme and wherein said immunoassay device has a substrate at a region upstream of said labeled reagent zone in said matrix, said substrate reacting said enzyme.

11. An immunoassay of SARS virus, comprising detecting said SARS virus in a test sample by an immunoassay utilizing antigen-antibody reaction between said anti-SARS virus monoclonal antibody or the antigen-binding fragment thereof according to any one of claims 1 to 5 and said SARS virus in said test sample.